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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,562	02/26/2002	Srikanth Gummadi	TI-33211AA	1260

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EXAMINER	
CORRIELUS, JEAN B	
ART UNIT	**PAPER NUMBER**
2637	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/085,562	GUMMADI ET AL.	
	Examiner	Art Unit	
	Jean B Corrielus	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 March 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figures 2-6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1 and 8-10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 and 10-14 of copending Application No. 09/996,167. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of the application differs only from claim 1 of the co-pending application by the wording of the preamble. However, the body of both claims is the same. Given that, it would have been obvious to one skill in the art to present the claim of the application as a variation of the claim of the co-pending application as such modification would have only provided an alternate way to word the preamble.

Claim 8 is the same as claim 2 of the copending application. The same analysis applies.

Claim 9 is the same as claim 9 of the copending application. The same analysis applies.

Claim 4 is the same as claim 10 of the copending application. The same analysis applies.

As per claim 10, it would have been obvious to one skill in the art to combine the correlation result so as to generate a single correlation indicating of the entire received sequence.

As per claim 11, it would have been obvious that the threshold would have been predetermined so as to ensure that only accurate correlation signals are generated.

As per claim 12, it would have been obvious that the threshold is adaptive and its value is changed depending on network conditions so as to improve system stability.

As per claim 13 it would have been obvious that the boundary detection would have been performed after each sample value is received so as to satisfy system requirements.

As per claim 14 it would have been obvious to one skill in the art that the boundary detection would have been performed after a specified number of sample value is received so as to satisfy system requirements.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's background of the invention and admitted prior art figs. 1-6.

As per claim 1, applicant background of the invention and admitted prior art figs. 1-6 disclose a method and apparatus (fig. 6) comprising receiving the stream of digital sample values fig. 2; correlating a digital sample value with a plurality of received digital sample values 610; calculating a correlation value based on the correlation 620; comparing the correlation value against a threshold, and determining the presence of the boundary based on the comparison see page 2, line 29-page 3, line 2.

As per claim 2, the digital sample value is a recently received digital sample value see page 14, lines 13-15.

As per claim 8, the plurality of received digital sample values are selected from the received stream based on their position in different periods of a periodic sequence see fig. 6.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's background of the invention.

As per claim 3, it is well known in the art in order to generate digital samples it is necessary to periodically sampling the communications channel. Given that fact, it would have been obvious to one skill in the art to configure applicant's background of the invention in such a way to sample the communication channel in order to recover the original signal.

As per claim 4, it would have been obvious to one skill in the art to receive a recently sampled value as the digital sample value so as to satisfy processing requirements of the system.

As per claims 5-7, it would have been obvious to one skill in the art to represent

the correlation as a multivalue correlation / a two value correlation / a three value correlation the reason to do so would have been the same as provided above in reference to claim 4 above.

8. Claims 11 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's background of the invention and admitted prior art figs. 1-6 in view of Okanoue et al US patent No. 6,738,439.

applicant background of the invention and admitted prior art figs. 1-6 disclose a method and apparatus (fig. 6) comprising receiving the stream of digital sample values fig. 2; correlating a digital sample value with a plurality of received digital sample values 610; calculating a correlation value based on the correlation 620; comparing the correlation value against a threshold, and determining the presence of the boundary based on the comparison see page 2, line 29-page 3, line 2. however, applicant's admitted prior art does not teach the further limitation of determining the presence of the packet based on the comparison it only teaches determining the presence of the boundary based on the comparison see page 2, line 29-page 3, line 2. in the same field of endeavor, Okanoue et al teaches the further limitation of determining the presence of the packet based on the comparison see col. 1, lines 32-38. given that, it would have been obvious to one skill in the art to incorporate such a teaching in applicant's background of the invention so as to enhanced signal detection.

As per claim 15, the received stream is stored in memory see page 13, lines 13-15, and wherein the correlating step comprises: comparing the digital sample value with

the plurality of received digital sample values; generating a one value for each time the digital sample value matches with one of the digital sample values in the plurality; and generating a zero value for each time the digital sample value does not match with one of the digital sample values in the plurality see page 14, lines 10-13.

As per claim 16, the calculating step comprises 2 summing up a correlation result resulting from each correlation of the digital sample value with the plurality of previously received digital sample values see adder 620.

As per claim 17, applicant's background of the invention further teaches that the correlating and calculating steps are performed more than once and an average correlation value is determined and compared against a threshold. See page 15, lines 9-11.

As per claim 18, it would have been obvious to one skill in the art to perform packet
detection after each digital sample value is received so as to satisfy processing requirements of the system.

As per claim 19, it would have been obvious to one skill in the art to perform packet
detection after a specified number of digital sample values is received and the reason to do so would have been the same as provided above in reference to claim 18.

9. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's background of the invention and admitted prior art figs. 1-6 in view of

Okanoue et al US patent No. 6,738,439 further in view of Lee US Patent Application S/N US2001/0005378 A1.

As per claim 12, as applied to claim 11 above, Applicant's admitted prior art and Okanoue teach every feature of the claimed invention but does not explicitly teach the further limitation of "wherein the packet is transmitted over a previously idle communication channel. In the same field of endeavor, Lee teaches the transmission of a packet over a previously idle communication channel see paragraph 0012. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in applicant's admitted prior art and Okanoue in order to avoid data lost.

As per claim 13, it is well known in the art in order to generate digital samples it is necessary to periodically sampling the communications channel. Given that fact, it would have been obvious to one skill in the art to configure applicant's background of the invention in such a way to sample the communication channel in order to recover the original signal.

As per claim 14, it would have been obvious that the digital sample of the idle communications channel would have been different in value from a digital sample of the communication channel transmitting the packets as the idle communication channel includes no real data as opposed to the communication channel that includes real data.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Corrielus whose telephone number is 571-272-3020. The examiner can normally be reached on Maxi-Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-3086. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jean B Corrielus
Primary Examiner
Art Unit 2637
3/19/05